



State of New Jersey  
Department of Environmental Protection and Energy  
Division of Responsible Party Site Remediation  
CN 028  
Trenton, NJ 08625-0028

Scott A. Weiner  
Commissioner

Karl J. Delaney  
Director

MAY 4 - 1993

CERTIFIED MAIL  
RETURN RECEIPT REQUESTED

Edward A. Hogan, Esq.  
Porzio, Bromberg & Newman  
163 Madison Avenue  
Morristown, NJ 07960

Re: Hexcel Corporation  
Lodi Borough, Bergen County  
ECRA Case # 86009

Dear Mr. Hogan:

This is in response to the January 26, 1993 Summary of Soils Investigation and Conceptual Cleanup Plan Proposal and the March 1, 1993 correspondence submitted by Killam Associates on behalf of Hexcel Corporation (Hexcel) for the above referenced site.

The New Jersey Department of Environmental Protection and Energy (NJDEPE) has reviewed these submittals and has the following comments. Hexcel shall submit the all information requested in items I., II. and III.A. below to this office along with the Progress Report due on or before June 15, 1993.

The current NJDEPE general guidance on contaminant cleanup levels can be found in the "Cleanup Standards for Contaminated Sites" which appeared in the February 3, 1992 New Jersey Register. This rule proposal can be used as guidance to help you determine: what concentration of contaminants need to be present at a site to consider the site contaminated; which areas of environmental concern need additional investigation; and, the concentration of a contaminant allowed to remain for a site to be considered "clean". It must be remembered, however, that the actual cleanup goal at a particular site is determined by the NJDEPE on a case-by-case basis and may be different than that in the above referenced rule proposal. This variation may be due to many factors, including, site specific human health and environmental exposure pathways, the presence of site contaminants not addressed in the rule proposal, and site specific physical characteristics. In case specific situations, when a cleanup level is modified from one previously established for that specific site, the NJDEPE will make every effort to expeditiously notify the responsible party. Please consult your case manager to discuss any modifications which may impact your remedial actions.

If the person conducting a cleanup does not wish to remediate a contaminated site consistent with the guidance, they shall submit a proposal to their NJDEPE case manager that details the site specific circumstances and technical rationale for cleanup goals on a case-by-case basis.



Please note that the referenced guidance has been supplemented by the adoption of the Ground Water Quality Standards (N.J.A.C. 7:9-6) which appeared in the February 1, 1993 New Jersey Register. This rule adoption may impact requirements for ground water remediation and soil cleanup (i.e. where the soil may contribute contaminants to the ground water above the applicable standards) for a particular site and should be referenced and discussed with your case manager.

Please be advised that several compound cleanup concentrations have changed since February 3, 1993, due to new information that has become available. Enclosed is the current NJDEPE health based guidance levels to be applied to the site.

I. JANUARY 26, 1993 SUMMARY OF SOILS INVESTIGATIONS AND CONCEPTUAL CLEANUP PLAN PROPOSAL

In general, the delineation of contamination presented in this report is acceptable. The NJDEPE is concerned with the length of time, 30 months, until the final design for soil remediation is determined. This time frame appears excessive. To be sure that the projected 30 months is absolutely necessary, Hexcel shall submit a revised time schedule indicated a detailed breakdown of the anticipated work.

The report identifies soil vapor extraction (SVE) and ex-situ thermal desorption as remedial alternatives to be evaluated. SVE and air sparging are proven remedies for the soil and ground water contaminants of concern at this site. If SVE/air sparging is selected as the remedial option for soil, Hexcel intends to perform air sparging to completion before initiating SVE. The NJDEPE recommends that if air sparging were performed, it would be appropriate to perform SVE at the same time, so that the contaminants removed from the saturated zone and released to the unsaturated zone would not re-contaminate the saturated zone upon water table fluctuation and create a vapor problem in the adjacent buildings.

Hexcel states that total petroleum hydrocarbon (TPHC) contamination is not amenable to remediation by SVE and that limited areas of TPHC contamination may need to be excavated. TPHC may not be vapor strips, but the introduction of air into the subsurface has been shown to stimulate biodegradation of TPHC contamination.

Hexcel rules out the excavation and off-site disposal of soils, in part due to the costs and potential land ban restrictions involved, but, also due to impediments to excavation, such as underground utilities and building foundations. Consideration will be given to excavating soils for on-site thermal desorption, however, it is expected that the same impediments to excavation apply to this alternative as well. This alternative is viewed as potentially feasible in areas where soils can be easily excavated.

The excavation and thermal desorption alternative should not be considered unless the volume of easily accessible soils is such that overall site remediation will be significantly expedited. Any such reduction in time should be weighed against the disruption of facility operations, costs and delays of additional permitting, additional monitoring requirements and health and safety considerations. Hexcel shall submit a review of these considerations in the Progress Report due on or before June 15, 1993.

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Hexcel proposes to complete a soil gas survey to refine the boundaries of the areas slated for remediation: Area 1, which merges original areas of concern (AOC) 1, 2 and 5; Area 2, which merges original AOC 3 and 4; and Area 3, which merges original AOC 6 with portions of original AOC 7 and 13.

On page 17 of the report, Hexcel proposes to merge original AOC 8, 13 and 14 due to their proximity and states that data point 801 will be further delineated via the soil gas survey. In the soils west of Bldg. 5 (no AOC designation), data point G-3 exceeds the current NJDEPE subsurface soil cleanup guidance levels for methylene chloride and tetrachloroethylene (PCE). On page 24, the report states that "a soil gas survey will be performed in the areas surrounding (remedial) Areas 1, 2 and 3"; however, this does not appear to include data points 801 and G-3. Hexcel shall provide clarification of this apparent omission. In addition, Hexcel shall refer to the enclosed Data Quality Objectives for Site Investigations for guidance.

A. AOC 9, 10 and 11

A review of the sample results to the current NJDEPE non-residential direct contact soil and the impact to ground water guidance levels. Therefore, the NJDEPE accepts the proposal for no further action for these AOC.

B. AOC 5

Prior to the NJDEPE accepting the proposal to limit further action to the portion of original AOC 5 (merged into remedial AOC 1), Hexcel shall provide clarification on the following.

Hexcel previously reported the completion of boring 508 in this AOC. This boring location may have addressed the previous NJDEPE recommendation for a boring immediately adjacent to the industrial sewer, although the sewer was not depicted on the accompanying Figure 3, nor was the invert depth of the sewer provided. The NJDEPE had recommended that the boring be advanced and field screened, and, if field readings greater than those previously identified in H/S-2 were detected, a sample should be secured from the interval(s) beneath the pipe invert exhibiting the highest reading(s) for volatile organic compounds (VOC) analyses.

The submitted boring logs indicated field screening results of 2661, 2580 and 3195 (units not specified) at 2.5-3 feet, 4.5-5 feet and 6.5-7 feet below ground surface (bgs), respectively. Field observations of strong odors and an oil-like substance were noted on the log. It was reported in the April, 1992 submittal that a sample was collected at 6-8 feet for VOC laboratory analyses, as required, however, no such sample was found in the data packages accompanying that or subsequent current submittals. The chain of custody indicates that sample 508-004A was submitted for TPHC analysis, however, this result could not be located. It appears that another sample, 508-004, was submitted under separate chain of custody for polychlorinated biphenyl (PCB), TPHC and gas chromatography (GC) fingerprint analyses (Appendix D of the report). TPHC was reported at 926 parts per million (ppm) and PCB were non-detect; the laboratory reported that the peak patterns for the sample were compared to known standards and found not to match any of them.

The original requirement to advance and field screen a boring at this location and to collect a sample from the interval(s) beneath the pipe invert exhibiting the highest reading(s) for VOC analyses, remains outstanding. The pipe invert depth was to be reported, but was not. This

information was required to determine if the industrial sewer line is, or was, a source of soil or ground water contamination. This remains unclear, although, based upon the information available thus far, it appears that this pipe is a contaminant source. Hexcel shall provide clarification on this issue.

C. AOC 7: Gasoline Underground Storage Tank Northeast of Bldg. 6

Hexcel did not address the required evaluation of contaminant migration along the sewer line, as required in the NJDEPE March 5, 1992 letter. Hexcel was required, in the Department's December 23, 1991, to provide an accurate description of the collection of post-excavation samples to include: depths bgs at which post-excavation samples were collected, tank and sewer line inverts and depth to ground water, which would provide some indication of the depth and thickness of the contaminated vadose zone soils. Hexcel shall evaluate and incorporate, as appropriate, this data into the proposed remedial investigation.

D. AOC 13

Before approving no further action for this area, Hexcel shall install a boring, 1304, on the building side of manhole M1, as previously required by the NJDEPE. A sample shall be collected from this boring approximately 2 feet bgs for TPHC, VOC and PCB analyses and a sample shall be collected at the top of the clay for TPHC and PCB analyses. Hexcel shall indicate the time frames for collection of these samples, including submittal of results to this office, on the revised time schedule.

E. Storm Sewer Outfall

While not a soil area of concern per se, it should be noted that Hexcel has yet to collect sediment samples from this outfall, as required in the NJDEPE Cleanup Plan Approval letter. Therefore, Hexcel shall address this area in the revised time schedule.

II. MARCH 1, 1993 CORRESPONDENCE

The NJDEPE has reviewed this correspondence and finds the Hexcel comments acceptable with the following exceptions.

- A. Hexcel proposes that the requirement of a bedrock well in the area of MW-1 be deferred until contaminant levels in the area of MW-1 have been reduced. Hexcel believes the deferral is appropriate because the bedrock well would have no bearing on the proposed remedial strategy and such a well might create a vertical pathway for downward contaminant migration. The pumping of a deep well might draw contamination from the overburden into the rock.

The NJDEPE acknowledges the Hexcel concern about introducing contamination to the bedrock aquifer. However, investigation of the bedrock aquifer was required because the NJDEPE is concerned that contamination might be present at concentrations that warrant hydraulic control. The NJDEPE believes that these two concerns are of equal importance and that deferral of the bedrock investigation would not be the best approach. Therefore, Hexcel shall submit an alternative proposal for assessment of bedrock aquifer ground water contamination at this time.

- B. Hexcel notes that MW-3 is a lower overburden well located downgradient of MW-1. The location of MW-3 varies between downgradient and sidegradient of MW-1 (refer to the April, 1992 lower overburden contour map). The distance between MW-1 and MW-3 is roughly 175 feet. Detailed delineation downgradient of MW-1 is necessary to define the area of groundwater contamination that required capture and to provide a compliance point for the required capture zone. This issue may be deferred until after the results of the sampling required in the NJDEPE letter of January 19, 1993 are available.
- C. Hexcel states that CW-18 is accessible for ground water level monitoring, however, CW-3, CW-5, CW-9, CW-11 and CW-15 are equipped with pumps and are inaccessible, therefore, ground water level monitoring can not occur in these wells.

The Hexcel response is acceptable. The NJDEPE had recommended that the ground water recovery wells be included in the water level monitoring program to help demonstrate hydraulic capture when the system is in operation. In the future, when assessing ground water flow direction under pumping conditions, accommodations shall be made for the lack of water level measurements from these wells.

In addition, according to NJDEPE records, CW-18 is one of the seven control wells that is to be pumped as part of the ground water recovery system. Hexcel shall clarify why CW-18 is not equipped with a pump. Also, Hexcel shall verify that CW-21 is equipped with a pump.

- D. The NJDEPE had not questioned the Hexcel desire to move forward with the ground water remediation program. The NJDEPE clarifies that its concern was not the cessation of the dense non-aqueous phase liquid (DNAPL) recovery that was prompted by expiration of the Hexcel approval to discharge under Fine Organics' sewer connection permit. Rather, the NJDEPE was concerned about the frequency at which Hexcel apparently intended to operate the DNAPL recovery system in the long-term, under its own sewer connection permit.

The DNAPL recovery system was originally designed to operate automatically, and on a continuous basis, to recover DNAPL as it entered the two DNAPL recovery wells, RW7-1 and RW7-5. When operation of the DNAPL recovery system on an automatic basis was not successful, system operation was reduced to manual operation for several hours a month, under the supervision of field personnel. The NJDEPE was concerned that such a frequency of operation was not sufficiently aggressive.

Hexcel has indirectly responded to this concern by stating that the system will be operated at rates and frequencies that will yield optimum DNAPL recovery, and that a formal protocol for operation of these pumps will be put into place in the future. The NJDEPE acknowledges that modification of the system will required field experimentation, but, at this time, Hexcel shall confirm whether continuous operation of the DNAPL system is planned. Also, the Hexcel proposal to equip MW-8 with a DNAPL recovery pump is acceptable.

- E. The NJDEPE notes that Hexcel plans to assess contaminant removal efficiency of the treatment system at its design capacity of 15 gallons per day (gpd) and to make necessary modifications to the treatment system and/or permit volume as required. The NJDEPE takes this opportunity to present its concerns regarding ground water recovery rates at the site and how they relate to the permitted discharge rates.

According to the original control-well recovery plan, sufficient hydraulic control of the upper overburden could be maintained by pumping from seven control wells at a combined rate of 13,000 gpd. This estimated, necessary rate, was later reduced to 10,000 gpd and is the recovery rate the NJDEPE assumes will be required. This 10,000 gpd does not include ground water associated with light non-aqueous phase liquid (LNAPL) recovery, ground water associated with the DNAPL recovery, nor basement seepage. Also, recovery from the lower overburden and recovery from bedrock would constitute additional withdrawals.

The sewer connection permit, the Significant Industrial User (SIU) permit and the air monitoring permit impose ground water discharge rate limits. Apparently, the air permit imposes the most restrictive discharge limit of roughly 6,300 gpd. The treatment system capacity is relatively large, but might be effectively reduced if the influent was passed through the system more than once. The NJDEPE is concerned that the rate of ground water cleanup will be hindered by these discharge limits. Hexcel shall present a discussion of this issue.

### III. GENERAL COMMENTS

- A. The NJDEPE has reviewed the revised time schedule for ground water investigation/remediation submitted in the March 1, 1993 correspondence and finds it conditionally acceptable. Hexcel shall submit a revised time schedule to this office which includes the time frames for the bedrock ground water investigation.
- B. Hexcel shall perform all sampling procedures in accordance with the protocol outlined in the May 1992 edition of the "NJDEPE Field Sampling Procedures Manual".
- C. Hexcel shall notify the case manager at least 14 calendar prior to the initiation of any remedial activities so that a representative from the NJDEPE may be present.

If you have any questions regarding this letter, please contact the Case Manager, Kathleen M. Katz, at (609) 633-7141.

Sincerely,



Tessie W. Fields, Section Chief  
Bureau of Environmental Evaluation and  
Cleanup Responsibility Assessment

### [ENCLOSURES]

c: Michael McCann, BEERA  
Beverly Phillips, BGWPA  
William Nosal, Hexcel Corporation  
William Hoehlein, Killman Associates  
James Higdon, FOA Corporation

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